

## REMARKS

### Rejections under 35 U.S.C. § 112

Claim 47 was rejected under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph, as being indefinite. Specifically, the Office Action asserts that it is unclear how the saw blades can exert an upward vertical force on the rolls. This rejection is respectfully traversed. Applicants respectfully point out the discussion in the specification relating to the forces experienced by a log during the cutting process. Specifically, on page 15, lines 12-15, it is described that:

The force  $F_{Tot}$  is the total force due to the blade, and is the sum of the forces due to the blade impacting the log  $F_{Imp}$  and due to the friction between the blades and the log and/or divided rolls  $F_{Bld}$ .

If the saw blades are moved downward as illustrated in Figures 36 and 37, then  $F_{Imp}$  can have a downward vertical component. However, the force due to the friction between the blades and the log and/or divided rolls ( $F_{Bld}$ ) contributes to an upward vertical force. On page 16, lines 4-6, the specification describes this  $F_{Bld}$  as:

... dependent on a wide variety of factors, including surface characteristics of the blade, lubricating additives, substrate composition, and relative speeds of operation ...

The total force of the blade could thus push the substrate out of the apparatus if the force is not counteracted due to the shape of the pocket. Applicants assert that claim 47 fully meets the requirements of 35 U.S.C. § 112, 2<sup>nd</sup> paragraph, and request that this rejection be withdrawn.

### Rejections under 35 U.S.C. § 102

Claims 31-36 and 42 were rejected under 35 U.S.C. § 102(b) over Wheless (U.S. Pat. No. 2,123,580). The Office Action asserts that Wheless discloses a cutting device; a pocket having an open and a closed end, first and second planar surfaces, a concave surface between the planar surfaces, and channels; and a sprocket supporting the

pockets and rotating about an axis. The Office Action further asserts that Wheless discloses the specific elements of dependent claims 32-36 and 42.

The rejection of the claims under 35 U.S.C. § 102(b) is respectfully traversed. Applicants point out that Wheless does not teach or suggest each and every element of claims 31-36 and 42. In particular, Wheless does not teach or suggest the claimed configuration of the pocket. Independent claim 31 recites in part:

... a pocket, the pocket comprising  
an open end;  
a closed end;  
a first planar surface;  
a second planar surface, wherein the second planar  
surface is larger than the first planar surface; and  
a concave surface between the planar surfaces, wherein  
the concave surface forms the closed end; ...

The Office Action correlates drawing element 15 of Wheless with the claimed pocket, and correlates drawing element 14 of Wheless with the claimed first planar surface. No specific drawing element or disclosure in Wheless has been correlated with the second planar surface as recited in the claims.

Applicants respectfully point out that the Office Action's correlations of elements of Wheless with the claimed aspects of the pocket are not consistent with the disclosure of the reference. The "recesses 15" of Wheless, which have been correlated with Applicants' pocket, are described in the reference at page 1, left column, line 52 through right column, line 12. In particular, the reference describes that:

These recesses curve inwardly from the periphery of the cradle in a direction opposite to the direction of rotation of the cradle, the inner portions of the recesses being substantially semicircular to better accommodate the logs which are, roughly, of cylindrical shape.

[p.1, left col., line 52 – right col., line 4; emphasis added]

and also describes that:

The curvature of the walls of the recesses is such that the logs will be retained therein ...

[p.1, right col., lines 7-9; emphasis added]

Thus, the walls of the recesses of Wheless are described as curved, and do not contain a planar portion.

In Figures 2-4 of Wheless, it does appear that the inner surface of the “hook-like formation, as shown at 14” (p.1, right col., lines 5-6) is planar. However, there is clearly no teaching or suggestion of a second planar surface in Wheless. The disclosure of the recesses in the reference only addresses the curvature of their walls, and does not mention another planar surface in the recesses. Moreover, there is nothing in Figures 2-4 to indicate that the recesses contain a second planar surface as recited in the claims. The claimed second planar surface is larger than the first planar surface, and a concave surface is situated between the second and first planar surfaces to form the closed end of the pocket. Accordingly, claims 31-36 and 42 are not anticipated by Wheless, as the reference does not teach or suggest each and every element of the claims.

### **Rejections under 35 U.S.C. § 103**

#### **Rejection over Wheless and Lindenblatt.**

Claims 37 and 47 were rejected under 35 U.S.C. § 103(a) over Wheless in view of Lindenblatt (U.S. Patent No. 5,174,351). Brown (U.S. Pat. No. 237,161) is also listed as a secondary reference, but no assertions were made in the Office Action regarding the teachings of Brown. The Office Action asserts that it would be obvious to combine the cutting apparatus of Wheless with the multiple circular saw blades disclosed in Lindenblatt. The Office Action further asserts that drawing element 20 of Wheless is not an “external structure” but is part of the sprocket, which the Office Action has correlated with drawing element 10 of the reference.

The rejection of the claims under 35 U.S.C. § 103(a) over Wheless and Lindenblatt is respectfully traversed. The applied references, alone or in combination, fail to provide each and every element of the claims. Claim 37 ultimately depends from independent claim 31. As noted above, Wheless does not teach or suggest each and every element of claim 31, particularly with respect to the second planar surface of the pocket. Lindenblatt does not teach or suggest, nor does the Office Action assert that Lindenblatt teaches or suggests, a pocket as recited in independent claim 31. Accordingly, dependent claim 37 is not obvious over Wheless or Lindenblatt, alone or in combination.

Claim 47 does not specifically recite the first and second planar surfaces of the pocket; however, the claim does recite:

... the pockets being configured to maintain the rolls in the pockets without the use of an external structure to hold the rolls in the pockets.

Lindenblatt does not teach or suggest, nor does the Office Action assert that Lindenblatt teaches or suggests, a pocket as recited in claim 47. With respect to Wheless, Applicants respectfully point out that the Office Action's assertions regarding drawing element 20 are inconsistent with the disclosure of the reference.

Wheless discloses "arms or latches 20" as "... pivoted adjacent each recess of a cradle..." (p.1, right col., lines 22-25; emphasis added) and notes that "... The arms can be pivoted on bolts 23 preferably at a point somewhat in advance, radially, of the recess..." (p.1, right col., lines 36-38; emphasis added). The function of these arms is also described in Wheless:

As the recesses move upwardly, each arm, in succession, will swing by gravity to a position across the entrance of its recess and the weight of portion 21 is such as to hold the log firmly seated in the inner semicircular extremity of its recess.  
[p.1, right col., lines 27-32; emphasis added]

Additional description of these arms and their function in the apparatus of Wheless is found at p.1, right col., lines 36-41; at p.2, left col., lines 59-67; and at p.2, right col.,

lines 54-62. These weighted arms are clearly separate from (i.e. external to) the recesses, which the Office Action has correlated with Applicants' pockets, as they are described as adjacent to and in advance of the recesses. These external arms function to maintain the logs in their recesses, which is specifically excluded from claim 47. Moreover, whether these arms are "part of the sprocket" as asserted by the Office Action is immaterial, as claim 47 does not recite a sprocket. Accordingly, claim 47 is not obvious over Wheless or Lindendblatt as the references, alone or in combination, do not teach or suggest each and every element of the claims.

### **Rejection over Wheless.**

Claims 38-41 and 44 were rejected under 35 U.S.C. § 103(a) over Wheless. The Office Action asserts that the dimensions of the pocket recited in these claims are an "obvious matter of design choice." The rejection of the claims under 35 U.S.C. § 103(a) over Wheless is respectfully traversed. The applied reference fails to provide each and every element of the claims.

Claims 38-41 depend from independent claim 31. As noted above, Wheless does not teach or suggest each and every element of claim 31, particularly with respect to the second planar surface of the pocket. Independent claim 44 also recites a pocket comprising both a first and a second planar surface. Thus, Wheless neither teaches nor suggests a pocket comprising a first planar surface and a second planar surface, as recited in claims 38-41 and 44. In addition, Applicants point out that claim 44 recites a pocket comprising a base "defining a horizontal axis." Although the Office Action states that such a base is disclosed by Wheless, there is no specific correlation of this to a portion of the description or to a drawing element in the reference.

Applicants also respectfully disagree with the characterization of the claimed dimensions as an "obvious matter of design choice." The dimensions of the planar surfaces, the concave surface, and the relative positions and orientations of the planar surfaces contribute to some of the unique properties of the apparatus and the pocket. A pocket having the claimed dimensions can help to maintain a log in the pocket during the cutting procedure without any external structures such as clamps or mandrels. The


recesses of Wheless, in contrast, must accommodate a variety of logs, since this reference is directed to timber production rather than to flexible logs (p.1, left col., lines 4-8). Wheless thus requires an external clamp to ensure that logs having a range of dimensions can be cut. Accordingly, claims 38-41 and 44 are not obvious over Wheless, as the reference does not teach or suggest each and every element of the claims.

### Conclusion

In conclusion, all of the grounds raised in the outstanding Office Action for rejecting the application are believed to be overcome or rendered moot based on the remarks above. Thus, it is respectfully submitted that all of the presently presented claims are in form for allowance, and such action is requested in due course.

Respectfully submitted,

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